AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims

1-21. (Cancelled)

22. (Currently amended) A method for determining ~~defined states or modifications in the mucous membrane of the uterus or in the epithelium of other organs~~ the receptivity of the endometrium and/or optimal implantation conditions in the uterus and/or presence of an undisturbed pregnancy, the method comprising the step of:

determining specifically a concentration of at least one of human endometrial chorionic gonadotropin (eßhCG; SEQ ID NO. 10~~/ehCG~~) and/or non-trophoblastic hCG (hCG type I, ß6[[,]] and ß7; SEQ ID NO. 9) in a sample of at least one of body liquid, tissue, and cells:

wherein expression of endometrial chorionic gonadotropin (eßhCG~~/ehCG~~) in samples derived from non-pregnant women signals receptiveness of the endometrium for a fertilized egg; [[or]]

wherein expression of endometrial chorionic gonadotropin (eßhCG) in samples derived from pregnant women signals an undisturbed pregnancy; and

wherein no expression of endometrial chorionic gonadotropin (eßhCG~~/ehCG~~) in samples derived from non-pregnant women signals nonreceptiveness of the endometrium for a fertilized egg and protection against pregnancy~~;~~

~~wherein a reduction of expression of endometrial chorionic gonadotropin (eßhCG/ehCG) in a pregnant woman with a healthy pregnancy signals a dysfunction of the endometrium or decidua, a pregnancy disorder due to a dysfunction of the decidua and a risk of miscarriage, intra-uterine growth retardation, preeclampsia, a premature birth or, at the end of pregnancy, the onset of labor~~.

23. (Currently amended) The method according to claim 22, further comprising the step of determining the proportion of eβhCG by additionally determining a concentration of trophoblastic hCG (hCG type II, tßhCG; SEQ ID NO. 8) or total ßhCG or total hCG.

24. (Currently amended) The method according to claim 22, wherein [[in]] the step of determining the concentration of human endometrial hCG (eßhCG; SEQ ID NO. 10~~/ehCG~~) comprises using at least one antibody that recognizes specifically human endometrial hCG (eßhCG; SEQ ID NO. 10~~/ehCG~~) and does not recognize trophoblastic hCG (hCG type II, tßhCG; SEQ ID NO. 8) ~~is used~~.

25. (Previously presented) The method according to claim 24, wherein at least one antibody recognizes specifically a peptide selected from peptide sequences according to SEQ ID NO. 1 or 3 or partial sequences thereof.

26. (Currently amended) The method according to claim [[22]] 23, wherein the concentration of human endometrial hCG and optionally trophoblastic hCG or total ßhCG or total hCG is determined in a sample selected from secretions, perfusion liquid, cells or tissue, wherein the sample originates from peripheral blood, serum, lochia, menstrual blood, amniotic fluid, urine, salvia, eye chamber fluid, the urogenital tract, the gastrointestinal tract, the respiratory tract or the central nervous system.

27. (Currently amended) The method according to claim 22 for determining receptivity of the mucous membrane of the uterus for a fertilized egg in prospective and retrospective embryo implantation diagnostics, comprising the step of taking a sample in the early luteal phase in the form of tissue from the endometrium or from the cervical mucous membrane, a secretion of the vagina, the cervix, or the uterus, or serum, plasma, or peripheral blood and determining in the sample the non-trophoblastic or human endometrial ßhCG concentration.

28. (Currently amended) A method ~~for determining defined states or modifications in the mucous membrane of the uterus or in the epithelium of other organs, the method comprising the step of determining a concentration of total hCG or of ß subunits thereof in a~~ according to any one of claims 22, 23, 24, 25, 26 and 27, wherein sample derived from non pregnant women is menstrual blood.

29. (Withdrawn) An antibody recognizing specifically endometrial hCG (eßhCG/ehCG) and not trophoblastic hCG(hCG type II, tßhCG) and recognizing specifically a peptide selected from the peptide sequences according to SEQ ID No. 1 or No. 3 or partial sequences thereof.

30. (Withdrawn) An antibody recognizing specifically the trophblastic human chorionic gonadotropin (hCG type II/tßhCG) and not endometrial human chorionic gonadotropin (e ßhCG/EhCG) and recognizing specifically a peptide selected from the peptide sequences according to SEQ ID No. 2 or No. 4 or partial sequences thereof.

31. (Withdrawn) A test kit for determining defined states or modifications in the mucous membrane of the uterus or in the epithelium of other organs comprising at least one antibody according to claim 20 or 30 and further antibodies and standards.

32. (Withdrawn) An endometrial ß subunit or human chorionic gonadotrophin (eßhCG) having an amino acid sequence according to SEQ ID No. 10.

33. (Withdrawn) A gene sequence ß6e coding for the endometrial ß subunit of human chorionic gonadotrophin (eßhCG) according to SEQ ID No. 7.

34. (Withdrawn) A peptide selected from the amino acid sequences according to a SEQ ID No. 1, 3, 12, and 14.

35. (Currently amended) A method according to claim 23 wherein [[in]] the step of determining a concentration of trophoblastic hCG (hCG type II, tßhCG) comprises using at least

one antibody that recognizes specifically trophoblastic hCG (hCG type II, tßhCG; SEQ ID NO. 8) and does not recognize endometrial hCG (eßhCG/ehCG) ~~is used~~.

36. (Cancelled)